Omni-Directional Siren

Model 2

Federal Signal’s Model 2 outdoor warning siren is an omni-directional siren capable of producing intense warning signals over a large area. The siren can be installed on a roof or utility pole.

Federal Signal’s Model 2 is a single tone siren capable of producing 102dBc at 100 feet while making only moderate power source demands. The Model 2 has a universal motor which operates from either 120VAC/DC or 240VAC/DC. A Federal Signal Model RC2W motor starter (purchased separately) is required to operate this siren.

Federal Signal’s Model 2 can serve as an outdoor plant-wide warning system where volume is needed to contrast with high ambient industrial sounds. It is ideal for use in the large, wide open areas found in industrial facilities such as refineries, steel mills and manufacturing plants. The Model 2 can be used for start/stop work signaling, plant evacuation or other emergency situations.

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Decibels @100'</th>
<th>Output Frequency</th>
<th>Beam Width</th>
<th>Mount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-120</td>
<td>120VAC/DC</td>
<td>102dBc</td>
<td>533Hz</td>
<td>360°</td>
<td>Roof (standard) or</td>
</tr>
<tr>
<td>2-240</td>
<td>240VAC/DC</td>
<td>102dBc</td>
<td>533Hz</td>
<td>360°</td>
<td>Pole (Model PMS required)</td>
</tr>
</tbody>
</table>
OMNI-DIRECTIONAL SIREN (2)

How to Order
Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- Specify model and voltage
- Specify motor starter (RC2W)
- Optional Accessories:
  - Pole Mount Stand (PMS)
  - Radio Activated Controller (FC)
- Specify radio frequency

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Mounting Height</td>
<td>35-40 feet</td>
</tr>
<tr>
<td>Available Tones:</td>
<td>1 standard</td>
</tr>
<tr>
<td>Effective Range*:</td>
<td>1,000 feet</td>
</tr>
<tr>
<td>Power Rating:</td>
<td>2 HP</td>
</tr>
<tr>
<td>Power Requirements:</td>
<td>120VAC/DC</td>
</tr>
<tr>
<td></td>
<td>240VAC/DC</td>
</tr>
<tr>
<td>Net Weight:</td>
<td>59.0 lbs.</td>
</tr>
<tr>
<td>Shipping Weight:</td>
<td>85.0 lbs.</td>
</tr>
<tr>
<td>Height:</td>
<td>25.0&quot;</td>
</tr>
<tr>
<td>Diameter:</td>
<td>19.63&quot;</td>
</tr>
<tr>
<td></td>
<td>13.75'/349.25 mm</td>
</tr>
<tr>
<td></td>
<td>25'/635 mm</td>
</tr>
<tr>
<td></td>
<td>19.63' / 498.6 mm</td>
</tr>
</tbody>
</table>

* Output a minimum of 70dBc

Replacement Parts

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bearing (Two Required)</td>
<td>8239A045</td>
</tr>
<tr>
<td>Brush and Spring (Two Required)</td>
<td>8247A020</td>
</tr>
<tr>
<td>Brush Holder (Two Required)</td>
<td>8247A021</td>
</tr>
</tbody>
</table>

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Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
Electro-Mechanical Siren

Model ECLIPSE 8

The Eclipse 8 is a mid-sized DC-powered omni-directional siren for outdoor warning that produces high intensity warning signals. This powerful and lightweight outdoor siren provides coverage with a maximum sound pressure level of 115dBC at 100 feet. The high decibel output provides maximum coverage with minimum installation costs. Operating from 48VDC, the siren utilizes the DC motor of our 2001 siren series for proven reliability.

The siren’s eight projector horns covers a 360° omni-directional area, with the capability of producing three signal options: steady, wail and fast wail. The Eclipse 8 will supply a minimum of 15 minutes of siren operation from its batteries even after 24 hours without AC power. The siren controls are available with battery operation, AC operation and AC operation with battery back-up. One-way and two-way radio control or landline options are available.

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Decibels @100'</th>
<th>Operating Current</th>
<th>Output Frequency</th>
<th>Beam Width</th>
<th>Mount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclipse 8</td>
<td>48VDC</td>
<td>115dBC</td>
<td>112 amps (Nominal)</td>
<td>525Hz</td>
<td>360°</td>
<td>Roof or Steel pole</td>
</tr>
</tbody>
</table>

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
BATTERY POWERED SIREN (ECLIPSE 8)

### SPECIFICATIONS

- **Operating Temperature:** -22°F to 140°F
- **Effective Range @ 70dBc:** 2200'
- **Net Weight:** 225 lbs. / 116.0 kg
- **Shipping Weight:** 380 lbs. / 173.0 kg
- **Height:** 63.4" / 161.0 cm
- **Width:** 46.68" / 118.6 cm

### HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- Specify model (Eclipse 8)
- Specify mounting options:
  - Steel Pole Mount (standard)
  - Roof Mount Equipment (optional)

### OPTIONAL ACCESSORIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclipse Siren Control</td>
<td>2001AC</td>
</tr>
<tr>
<td>AC operated, 208 or 220/240 VAC (specify voltage), NEMA4X aluminum control cabinet, (2) 48VDC contactors, and transformer/rectifier. 182 lbs. / 53kg</td>
<td></td>
</tr>
<tr>
<td>Federal Controller</td>
<td>DCFCB</td>
</tr>
<tr>
<td>120VAC NEMA4X aluminum control cabinet, (4) chargers (2) 48VDC contactors, and NEMA 3R aluminum battery cabinet. (4) preset siren functions. Radio not included. 224 lbs. / 102kg</td>
<td></td>
</tr>
</tbody>
</table>

### REPLACEMENT PARTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor</td>
<td>84020061</td>
</tr>
</tbody>
</table>

**2645 Federal Signal Dr., University Park, IL 60484  Tel: 708.534.4756   Fax: 708.534.4852   www.federalsignal-indust.com**

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
Battery Powered Electromechanical Siren

Models 2001-130

The Federal Signal Model 2001-130 is a unique innovation in the high power outdoor warning siren market. The patented design represents a new generation of rotating, uni-directional electromechanical sirens.

The 2001-130 can be operated with a 120VAC battery-backup control cabinet or a 240VAC/VDC control cabinet.

This siren can be controlled remotely via wire or radio with the Model FC controller. The Model 2001-130 produces three distinctly different tones - Wail, Fast Wail and Steady. The high decibel output provides for maximum coverage from a single siren site.

Federal Signal’s Model 2001-130 produces 130dBc at 100 feet. Its ring radiator projects a 60° beam of sound which rotates at two RPM and is adjustable to six RPM. The design allows for small size without compromising sound output, and minimizes wind loading.

The Model 2001-130 is ideally suited for wide area coverage with high decibel output and attention getting signals. The Model 2001-130 also overcomes high ambient noise areas, such as those found in industrial plants, steel mills, chemical plants and refineries.

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Decibels @ 100'</th>
<th>Operating Current</th>
<th>Standby Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-130</td>
<td>48VDC</td>
<td>130dBc</td>
<td>100 amps (Nominal)</td>
<td>N/A</td>
</tr>
<tr>
<td>DCFCB</td>
<td>120VAC</td>
<td>N/A</td>
<td>4 amps</td>
<td>0.2 amps</td>
</tr>
<tr>
<td>2001AC</td>
<td>240VAC¹</td>
<td>N/A</td>
<td>30 amps²</td>
<td>N/A</td>
</tr>
</tbody>
</table>

¹ Also operates on 208 or 220/240VDC (please specify)
² 50 amp service recommended

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
ELECTROMECHANICAL SIREN (2001-130)

HOW TO ORDER
Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- Specify model
- Specify controller

SPECIFICATIONS
Rotation Speed: (2001-130) 2-6 RPM (adj.)
Continuous Signal Time*: (2001DC) 15 minutes minimum @ full output (2001DO) 20+ days with 5 minutes full signal reserve
Effective Range at 70dBc:

TONE          FREQUENCY          SWEEP
Steady:       750 Hz            N/A
Wait:          470-705 Hz       10.0 sec.
Fast Wait:     600-705 Hz       3.5 sec.

* After AC power failure

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Operating Temperature</th>
<th>Net Weight</th>
<th>Shipping Weight</th>
<th>L</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-22°F – 140°F</td>
<td>395 lbs.</td>
<td>450 lbs.</td>
<td>41&quot;</td>
<td>37&quot;</td>
</tr>
<tr>
<td></td>
<td>-30°C – 60°C</td>
<td>180 kg</td>
<td>205 kg</td>
<td>104.14 cm</td>
<td>37&quot;</td>
</tr>
<tr>
<td>2001-130</td>
<td></td>
<td></td>
<td>37&quot;</td>
<td>55&quot;</td>
<td></td>
</tr>
<tr>
<td>DCFCB</td>
<td>-22°F – 140°F</td>
<td>141 lbs.</td>
<td>234 lbs.</td>
<td>16&quot;</td>
<td>24&quot;</td>
</tr>
<tr>
<td></td>
<td>-30°C – 60°C</td>
<td>64 kg</td>
<td>106 kg</td>
<td>40.64 cm</td>
<td>24&quot;</td>
</tr>
<tr>
<td>2001AC</td>
<td>-22°F – 140°F</td>
<td>159 lbs.</td>
<td>182 lbs.</td>
<td>10&quot;</td>
<td>24&quot;</td>
</tr>
<tr>
<td></td>
<td>-30°C – 60°C</td>
<td>72 kg</td>
<td>83 kg</td>
<td>25.4 cm</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>

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Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
Federal Signal’s Model DSA Directional Speaker Array provides excellent voice and tone reproduction and is ideal for overcoming high levels of industrial noise.

Design flexibility allows the user to combine up to four speaker arrays; each array will hold from two to six re-entrant speakers. Speakers have a 70° horizontal angle of dispersion, accommodating specific sound output patterns. (When vertical stacks are placed 90° apart, a 180° horizontal coverage is possible.)

The Model DSA mounting kits allow for multiple speaker arrays to be mounted on the same pole at 90° increments. The downward tilt can be adjusted by 15°. The mounting flexibility of this system allows the speakers to be pointed directly at a targeted area for more concentrated sound output.

A DSA consists of a corrosion resistant aluminum frame with fiberglass projectors and stainless steel mounting hardware. Each speaker contains a high-efficiency 100 watt driver.

Amplification, tone generation and signal timing are provided by the Model UV controller, purchased separately.

Ideal for outdoor industrial plant warning, the Model DSA speaker array allows sound coverage to be customized to each site, preventing wasted sound in and around the plant. The Model DSA provides better speech intelligibility within a coverage zone than omni-directional speaker arrays.

<table>
<thead>
<tr>
<th>Model</th>
<th>No. of 100W Speakers</th>
<th>Total Watts</th>
<th>Decibels @ 100'</th>
<th>Effective Range</th>
<th>Net. Wt. lbs./kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSA2</td>
<td>2</td>
<td>200</td>
<td>111dBC</td>
<td>1,700'</td>
<td>43/19.5</td>
</tr>
<tr>
<td>DSA3</td>
<td>3</td>
<td>300</td>
<td>115dBC</td>
<td>2,200'</td>
<td>80/36.2</td>
</tr>
<tr>
<td>DSA4</td>
<td>4</td>
<td>400</td>
<td>117dBC</td>
<td>2,600'</td>
<td>95/43.1</td>
</tr>
<tr>
<td>DSA5</td>
<td>5</td>
<td>500</td>
<td>119dBC</td>
<td>3,000'</td>
<td>110/49.9</td>
</tr>
<tr>
<td>DSA6</td>
<td>6</td>
<td>600</td>
<td>121dBC</td>
<td>3,400'</td>
<td>125/56.7</td>
</tr>
</tbody>
</table>
**DIRECTIONAL SPEAKER ARRAY (DSA)**

**SPECIFICATIONS**
- Color: Black projectors with Off-White Housing
- Paint: TGIC – Polyester Powder Coat, highly corrosion resistant
- Frequency Response: 300Hz - 4000Hz

**HOW TO ORDER**

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- The DSA speaker array is used in conjunction with the UV controller. The UV houses the amplifiers that drive the DSA speaker array. Each DSA is made up of individual 100 watt speakers.
  
  **FOR EXAMPLE:** A DSA4 has four 100 watt speakers.
- Multiple DSA arrays can be controlled by a single UV

**FOR EXAMPLE:** A DSA4 has four 100 watt speakers.
- Multiple DSA arrays can be controlled by a single UV

as long as the total wattage meets or exceeds the total wattage required by the DSAs. The total watt required is the sum of all 100 watt speakers from each DSA.

**MOUNTING KITS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Mounting Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSAMK1</td>
<td>One vertical support wall mount</td>
</tr>
<tr>
<td>DSAMK2</td>
<td>Two vertical supports 180° apart on pole</td>
</tr>
<tr>
<td>DSAMK4</td>
<td>Four vertical supports 90° or 180° apart, pole mounted</td>
</tr>
<tr>
<td>DSAMKSP</td>
<td>Mounting Kit for steel pole for (1) vertical stack</td>
</tr>
<tr>
<td>DSAMKSPB45</td>
<td>Mounting Bracket for steel pole for (1) vertical stack</td>
</tr>
</tbody>
</table>

**REPLACEMENT PARTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver, 100 watt</td>
<td>8570063A</td>
</tr>
</tbody>
</table>
Modulator®
Speaker Array

Model MOD Series

Federal Signal’s Modulator® Speaker Array Series consists of a family of six electronic sirens. These innovative omni-directional sirens are capable of producing high-intensity warning signals over a wide area. This efficient design enables these sirens to produce a high sound level, while making only moderate demands on the power source.

Each Modulator Speaker Array is made up of aluminum modules that utilize four 100 watt drivers. Speaker arrays require a siren control unit/battery cabinet (purchased separately).

The Modulator Speaker Array provides a flat frequency response from 200 to 2000Hz for excellent voice reproduction or warning signals such as: Wail (attack), Pulsed Steady, Steady (alert), Alternating Steady, Alternating Wail, and Pulsed Wail – which are produced by the modulator siren control unit.

Federal Signal’s Modulator Speaker Array is intended for outdoor applications. Industrial sites such as refineries, chemical plants, power plants, or tank farms are typical applications for these omni-directional electronic arrays.

<table>
<thead>
<tr>
<th>Model</th>
<th>Active Modules</th>
<th>Watts</th>
<th>Decibels @ 100’</th>
<th>Effective Range @ 70dBc</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD1004</td>
<td>1</td>
<td>400</td>
<td>106dBc</td>
<td>1,200’</td>
</tr>
<tr>
<td>MOD2008</td>
<td>2</td>
<td>800</td>
<td>112dBc</td>
<td>1,800’</td>
</tr>
<tr>
<td>MOD3012</td>
<td>3</td>
<td>1200</td>
<td>115dBc</td>
<td>2,200’</td>
</tr>
<tr>
<td>MOD4016</td>
<td>4</td>
<td>1600</td>
<td>118dBc</td>
<td>2,800’</td>
</tr>
<tr>
<td>MOD5020</td>
<td>5</td>
<td>2000</td>
<td>120dBc</td>
<td>3,100’</td>
</tr>
<tr>
<td>MOD6024</td>
<td>6</td>
<td>2400</td>
<td>121dBc</td>
<td>3,400’</td>
</tr>
</tbody>
</table>

* MOD 6048 available, produces 125dBc @ 100’. Contact factory for specification assistance.
HOW TO ORDER
Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- Specify speaker array model number – each speaker array model must be ordered with a specific corresponding UV and Amplifier.

SPEAKER CONTROLLER*
- MOD1004  UV + 1 UV400
- MOD2008  UV + 2 UV400
- MOD3012  UV + 3 UV400
- MOD4016  UV + 4 UV400
- MOD5020  UV + 5 UV400
- MOD6024  UV + 6 UV400

- Specify optional CABEX 10' cable extension†

REPLACEMENT PARTS
Description | Model
--- | ---
Driver, 100 watt | 8570063A

* Controllers available in Radio, IP, and Landline.
† 40 feet of cable is supplied with siren. Extension cable in 10 foot increments is also available. Mounting the UV controller further than 100 feet is not recommended (further mounting may decrease power output).
**Siren Controller**

**Model FC**

The Federal Signal Controller Model FC is a 120VAC radio receiver/decoder and timer with relay outputs. This versatile model is ideal for virtually all siren control applications and any other process which can be controlled via relay contacts.

The microprocessor-based controller comes with two-tone sequential, dual-tone multiple frequency (DTMF), or frequency shift keying (FSK) decoding capabilities, and up to four individually programmable relays.

Options include a synthesized radio receiver (low band, high band, or UHF), a built-in tone generator, which adds six standard tones, public address capability, and a software package that allows the unit to be connected to any IBM-compatible computer to modify supplied timing or to create unique tone patterns. Programming options include radio receiver frequency, two-tone sequential tones/DTMF/FSK decoding digits, custom audible signal tones, and independent control of output relays and timing patterns for electromechnical sirens.

Up to six control codes may be programmed and activated by any combination of two-tone sequential, DTMF or FSK tone bursts. Four of the timing sequences can be initiated using local push buttons or remotely through dry contact closures.

The Federal Controller is used to control Federal Signal siren Models 2 and 2001. Also, the unit can be used to add radio activation of indoor PA and SelecTone® systems, to control warning lights, or to replace existing and outdated electro-mechanical timing mechanisms for existing systems.
HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- Specify model (FC) – call representative for various options to meet specific requirements.
- Specify voltage (120VAC or 240VAC)
- Specify radio frequency
- Specify antenna (RP164) high band or UHF band (one way)
- Optional Accessories:
  Programming Software (FSPWARE)
  Tone coded squelch decoder (CTCSS/PL)

SPECIFICATIONS

ELECTRICAL
- AC Power Inputs: 120 or 240VAC
- Battery Input (12VDC): 10.5 to 18.0VDC
- Input Current: 120VAC 180mA AC Max., 460mA DC Max.
- Relay Output Timings: 0.5 to 999.0 seconds

RECEIVER/DECODER
- Frequency Range (programmable):
  - Low Band: 30 to 50MHz in 5kHz steps
  - High Band: 148 to 174MHz in 5kHz steps
  - UHF: 450 to 470MHz in 12.5kHz steps
- Sensitivity: 0.35 uV for 12dB SINAD
- Rejection: (-60)dB
- Selectivity: (-60)dB
- Stability: 5.0 ppm
- Antenna Impedance: 50.0 ohms
- Audio Band Pass: 64 to 3300 Hz

Deviation Acceptance: 3.5± 1.0kHz for valid decoding

Decode Sensitivity: 20dB S/N (typical 0.5 uV or RF)

DTMF
- Format: 50/50 to 1000/1000 milliseconds (digit duration/digit silence)
- Decode Sensitivity: 1200 Baud, MSK
- Usable Decode Sensitivity: 10dB SINAD (min.)

TWO TONE
- Timing: 0.5 to 8.0 seconds duration (each tone)
- Intertone Silence: 0.4 seconds max.
- Frequency Range: 300-3000Hz
- Operating Temperature: -30°C to 65°C (-22°F to 140°F)
- Dimensions: 14.25" H x 9.25" W 5.5" D (36.2 cm x 23.5 cm x 14.0 cm)
UltraVoice™ Indoor Controller

Model UVIC

The Federal Signal UltraVoice™ Indoor Controller, Model UVIC, is designed to deliver clean, clear, amplified audio to a network of speakers (sold separately), configured for indoor notification or evacuation. The UltraVoice Indoor Controller has been designed for high quality reproduction of live or pre-recorded voice and tone, providing the ability to automate testing and emergencies.

The UVIC is housed in a single NEMA1 style cabinet, with provisions for up to two 400 watt amplifiers (sold separately). Each controller requires 120VAC and contains two sealed lead-acid batteries, providing over 30 minutes of operation in the event power has been lost. The UVIC may be either Landline activated or Radio controlled from a remote location. Landline activation can initiate one of the 8 onboard functions by connecting a momentary dry contact closure (customer supplied) to the appropriate pc board mounted terminal block. These functions can contain a combination of tone and pre-recorded voice or Public Address. Public Address is available from the supplied microphone located inside the controller. If Radio Control of the UVIC is desired, an optional Federal Signal Encoder Model SS2000D and base station radio (approved radio license required at time of order) must be added to the control package and is typically located where administrative control and activation resides. In either configuration, each function will remain active for 3 minutes as standard.

The UVIC controller is also compatible with our Federal Commander® Windows® Based Digital status monitoring and activation software to “point and click” activation and local indication of alarms or fault conditions. Available functions to be displayed on a computer screen or captured to a database or printer are: AC Power, Battery Voltage, Charger Operation, Activation Current, Amplifier Status, Quiet Test, Intrusion and Local Activation.

Options

Ultravoice units may be equipped with a programmable RF receiver for remote control using MSK or DTMF protocols. Federal Commander Windows based software provides command and control for UltraVoice two way products.

**FEATURES**

- Landline, Ethernet (IP) or Radio Control w/Two-way Status Monitoring
- Public Address
- Seven Standard Tones
- 70 Vrms Audio Output Standard (25 Vrms optional)
- 4 Programmable Relays, 600-Ohm, Line-level and 33-OHM Audio Outputs (with optional UVARM)
- Type 1 Enclosure
- Up to 16 Digitally Stored Messages Standard (8 minute total storage capacity)
- Batteries and Local Microphone Included
- Optional Windows Based Activation and Status Monitoring Software
- UL and cUL Listed

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>Net Weight (No Amplifiers)</th>
<th>Shipping Weight (UVIC)</th>
<th>Shipping Weight (Batteries)</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>-30˚C to 65˚C</td>
<td>64.55 lbs</td>
<td>200 lbs</td>
<td>58.97 lbs</td>
<td>31”</td>
<td>17.36”</td>
<td>13.62”</td>
</tr>
</tbody>
</table>

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com
ORDER INFORMATION

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:

- **UVIC**: Indoor Controller, No Radio
- **UVICH**: Indoor Controller, Two-way VHF (150-174) MHz
- **UVICU**: Indoor Controller, Two-way UHF (450-474) MHz
- **UVIC-IP**: Indoor Controller, IP-enabled
- **UVIC-LL**: Indoor Controller, Landline
- **UVICH240**: Indoor Controller, Two-way 240VAC, VHF
- **UVICU240**: Indoor Controller, Two-way 240VAC, UHF

SPECIFICATIONS

- **Input Voltage**: 120 or 240VAC +/- 10%, 50/60 Hz Single-phase
- **Input Current**: 5A AC, 45A DC Max
- **Operating Voltage**: 24VDC
- **Standby Time**: 3 Days with 5 minutes in reserve
- **Continuous Signaling Time**: 30 minutes
- **Audio Output (UV400)**: 70 Vrms (nominal)

OPTIONAL ACCESSORIES

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>UV400</td>
<td>Amplifier, 400 Watt</td>
</tr>
<tr>
<td>DVR</td>
<td>Digital Voice Recording Fee</td>
</tr>
<tr>
<td>DV480</td>
<td>Digital Voice Chip (8 minutes)</td>
</tr>
<tr>
<td>SFCD10</td>
<td>Federal Commander® Two-way Status Monitoring Software, 10 Site License</td>
</tr>
<tr>
<td>SFCD25</td>
<td>Federal Commander Two-way Status Monitoring Software, 11-25 Site License</td>
</tr>
<tr>
<td>TB-LL</td>
<td>Telco Base, Landline</td>
</tr>
<tr>
<td>UVARM</td>
<td>UltraVoice Audio Relay Module</td>
</tr>
<tr>
<td></td>
<td>Balanced 33-Ohm output: Adj. from 0.2-1.9 Vrms</td>
</tr>
<tr>
<td></td>
<td>Balanced 600-Ohm output: Adj. from 0.2-3.0 Vrms or -12 to +11 dBa</td>
</tr>
<tr>
<td></td>
<td>Single Ended Line-Level: Adj. from 0.2-3.0 Vrms</td>
</tr>
<tr>
<td></td>
<td>Relay Outputs: 4 programmable relays rated 30Vdc, 15A</td>
</tr>
<tr>
<td>UVIC25ST</td>
<td>Step-down transformer, 68-25 Vrms (Note: 25 Vrms step down transformer occupies one amplifier slot making the UVIC capable of a maximum of 400 watt in this configuration.)</td>
</tr>
</tbody>
</table>
UltraVoice™
Electronic Siren Controller
Model UV

The Federal Signal UltraVoice™ is designed to provide one- or two-way control of high-power electronic sirens such as the MOD or DSA, or to control indoor AudioMaster speaker systems. UltraVoice produces amplified audio signals including seven built-in warning tones, high-quality live public address, and pre-recorded voice messages.

The UltraVoice is housed in two cabinets. The control cabinet houses the control module and amplifiers. A separate vented cabinet houses the batteries. The standard cabinet for the UltraVoice is made from 5052-H32 grade aluminum. This control cabinet is also available in 304 or 316 stainless steel. The number of amplifiers and batteries (purchased separately) required by an UltraVoice Controller depends on the power required by the specific siren array or speaker system.

Two-way systems provide siren status to the control station and include a sensor package, radio transceiver and encoder/decoder. Computer controlled status monitoring of the following conditions is provided: AC Power, Battery Voltage, Charger Operation, Activation Current, Signal Line A and B, Mode of Operation, Quiet Test, Intrusion, and Local Activation.

Options

UltraVoice units may be equipped with a programmable RF receiver for remote control using MSK, DTMF or Two-tone Sequential protocols. Pre-recorded digital voice messages can be added by simply plugging in a four- or eight-minute IC chip. Windows®-based software is available that allows users to configure activation sequences.

MICROPROCESSOR-BASED CONTROL SYSTEM FOR HIGH-POWER ELECTRONIC SPEAKER ARRAYS

- One- or two-way siren control
- Status monitoring
- Seven warning tones
- Public address
- Digital pre-recorded voice messages
- Landline, Ethernet (IP) or Radio Control
- Pole or wall mount
- Type 4 or optional 4X enclosure
- UL and cUL Listed
ULTRAVOICE™ ELECTRONIC SIREN CONTROLLER

BATTERY REQUIREMENTS

• Customer must provide necessary batteries. Call for assistance with specific system requirements.

STANDARD TONES

<table>
<thead>
<tr>
<th>Tone</th>
<th>A/B Tone Frequency Range</th>
<th>Sweep Rate (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wail</td>
<td>400/480-850/1020</td>
<td>13.0</td>
</tr>
<tr>
<td>Pulsed Wail</td>
<td>400/480-850/1020</td>
<td>1.5/13.0</td>
</tr>
<tr>
<td>Alternate Wail</td>
<td>400/480-850/1020</td>
<td>1.5/13.0</td>
</tr>
<tr>
<td>Steady</td>
<td>850/1020</td>
<td>N/A</td>
</tr>
<tr>
<td>Pulsed Steady</td>
<td>850/1020</td>
<td>1.5</td>
</tr>
<tr>
<td>Alternate Steady</td>
<td>850/1020</td>
<td>1.5</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

Power

- Input Voltage: 120/240±10%, 50/60Hz VAC single-phase
- Input Current: 7 A Max.
- Operating Voltage: 24VDC
- Standby Current: UV - 100mA DC, UVT - 600mA DC
- Standby Time: > 7 days
- Continuous Signaling Time: 30 min.

Control Module

- Signal Duration (auto reset): 3 min.
- Microphone
  - Input Impedance: 10k ohms
  - Audio Distortion: 1% THD max.
- Maximum Load: 600 ohms
- Contact Closure: (min) 500 ms<1.0k ohms

Amplifier Module

- Frequency Response:
  - (300 to 3 kHz) ±3dB (ref. 1kHz)
- Output Voltage (Tone and PA):
  - (to speaker drivers) 70 Vrms
- Input Impedance:
  - (per amplifier) 100k ohms

General

- Operating Temperature**: -22°F to 149°F, -30°C to 65°C
- Enclosures:
  - Control Cabinet: Type 4 or 4X
  - Battery Cabinet: Type 4 (vented)

** The siren can operate throughout this temperature range provided the battery temperature is maintained at 0°F/-18°C or higher.

STANDARD TONES

<table>
<thead>
<tr>
<th>Tone</th>
<th>A/B Tone Frequency Range</th>
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<tr>
<td>Wail</td>
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<td>1.5/13.0</td>
</tr>
<tr>
<td>Alternate Wail</td>
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<td>1.5/13.0</td>
</tr>
<tr>
<td>Steady</td>
<td>850/1020</td>
<td>N/A</td>
</tr>
<tr>
<td>Pulsed Steady</td>
<td>850/1020</td>
<td>1.5</td>
</tr>
<tr>
<td>Alternate Steady</td>
<td>850/1020</td>
<td>1.5</td>
</tr>
</tbody>
</table>
ELECTRO-MECHANICAL SIREN CONTROLLER

- Two-way Siren Controller for 48VDC Sirens
- Two-way Radio Control and Status Monitoring
- FSK Two-way Signaling Format
- Simultaneous Single Tone, Two-tone Sequential, and DTMF Decoding
- Push Buttons for Local Activation
- Landline, Ethernet (IP) or Radio Control
- UL Listed for general signaling

The ACFTBD and DCFTBD models are two-way, battery-operated status monitoring siren controllers for use with the 2001 and Eclipse siren series. These controllers interface with an off-the-shelf two-way radio transceiver and communicate to the base control via FSK signaling. In addition to FSK, the controllers will decode any combination of Single-tone, Two-tone Sequential, or DTMF formats. This makes the two-way controllers compatible with virtually any existing siren control system.

All ACFTBD and DCFTBD models come equipped with four (4) independent relay outputs that can be programmed to activate with various codes. There are four (4) landline inputs and four (4) local push buttons for activation, plus cancel. Activation codes, relay timing, and optional warning sounds are programmed into the unit through a standard RS232 serial port or over-the-air from the central control point.

The ACTCFTBD and DCFCTBD models offer six (6) user programmable functions in addition to the five pre-set functions: ARM, DISARM, REPORT, GROWL TEST, and MASTER RESET. The controllers includes the necessary sensors and wiring to supply information on the following areas of operation: AC Power Status, Communications Status, Low Battery Voltage Indication, Siren Activation Current, Intrusion, and Siren Rotation.

The DCFTBD models are available in VHF-high, and UHF bands using Motorola transceivers to provide two-way signaling capabilities. An optional transformer/rectifier, used for primary system power in an AC/DC configuration, is available when AC power with battery back-up is required.
TWO-WAY DIGITAL CONTROLLER FOR 2001 AND ECLIPSE SIREN (ACFCTBD/DCFCTBD)

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Operating Temperature:</th>
<th>-30°C to 65°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Supply Voltage:</td>
<td></td>
</tr>
<tr>
<td>ACFCTBD:</td>
<td>115VAC @ 4.0 amps</td>
</tr>
<tr>
<td>DCFCTBD:</td>
<td>120VAC @ 4.0 amps</td>
</tr>
<tr>
<td>2001TR: 08/220/240 VAC single phase @ 25-30 amps (approx.)</td>
<td></td>
</tr>
<tr>
<td>ACFCTBD:</td>
<td>8A @ 13.3VDC</td>
</tr>
<tr>
<td>DCFCTBD:</td>
<td>6A @ 13.3VDC</td>
</tr>
<tr>
<td>Battery Backup:</td>
<td></td>
</tr>
<tr>
<td>ACFCTBD:</td>
<td>12VDC 12A/H standby</td>
</tr>
<tr>
<td>DCFCTBD:</td>
<td>48VDC</td>
</tr>
<tr>
<td>Dimensions:</td>
<td></td>
</tr>
<tr>
<td>ACFCTBD Controller:</td>
<td>18” x 22.5” x 11”</td>
</tr>
<tr>
<td>DCFCTBD Controller:</td>
<td>19.0” x 23.5” x 11.19”</td>
</tr>
</tbody>
</table>

| Shipping Weight:       |               |
| ACFCTBD:               | 155 lbs. (70.5 kg) |
| DCFCTBD:               | 300 lbs. (136.36 kg) |
| 2001TR:                | 150 lbs. (68.2 kg) |
| Current Draw:          | < 0.2 amps in standby |
| 4 Relay Outputs:       | SPST          |
| Contact Rating:        | 5A @ 28VDC    |
| Audio Output Voltage:  | >2V Peak to Peak |
| Total Harmonic Distortion: | 10% @ 1kHz Sinewave |
| Maximum Audio Load:    | 8 Ohms        |

**REPLACEMENT PARTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-way Federal Controller, AC Powered</td>
<td>ACFCTBD¹²</td>
</tr>
<tr>
<td>Two-way Federal Controller, DC Powered</td>
<td>DCFCTBD¹²</td>
</tr>
<tr>
<td>Two-way Federal Controller, High Band, 148-174 MHz, AC Powered</td>
<td>ACFCTBDH¹²³</td>
</tr>
<tr>
<td>Two-way Federal Controller, High Band, 136-174 MHz, DC Powered</td>
<td>DCFCTBDH¹²³</td>
</tr>
<tr>
<td>IP-enabled Two-way Electro-mechanical Controller</td>
<td>DCFCTBD-P¹³</td>
</tr>
<tr>
<td>Two-way Federal Landline Controller</td>
<td>DCFCTB-LL¹</td>
</tr>
<tr>
<td>Two-way Federal Controller, UHF Band, 450-470 MHz, AC Powered</td>
<td>ACFCTBDU¹²³</td>
</tr>
<tr>
<td>Two-way Federal Controller, UHF Band, 450-470 MHz, DC Powered</td>
<td>DCFCTBDU¹²³</td>
</tr>
</tbody>
</table>

**HOW TO ORDER**

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:

- Specify Federal Programming software (FSPWARE) for non-digital applications or Federal Commander Digital Software

¹ For use with 2001 and Eclipse siren series
² Antenna and cable are not included with radio activation control and must be ordered separately
³ Batteries required. Call for assistance with specific system requirements
Federal Signal’s Model SS2000 is a versatile, user-friendly and economical siren controller that supports one-way communication with the option of two-way communications using DTMF or FSK encoding. Command sequences are programmable and stored in non-volatile memory chips for retention, even when electrical power is disrupted.

Power is supplied by a standard 120VAC wall outlet and can be backed up with a user supplied 12VDC battery and charger.

The Model SS2000 features a four-line backlit liquid crystal display (LCD), full DTMF keypad and 18 user-programmable function keys. Four LEDs are used to indicate the status of the optional printer, radio frequency (RF) carrier detection, key press and one miscellaneous function. A key lock is provided to secure the controller’s keypad from unauthorized access.

As a status monitoring device for electronic sirens, the Model SS2000 monitors AC power, intrusion, amplifiers and drivers; operating current, charger, battery and audio A and B lines.

As a status monitoring device for mechanical sirens, the model SS2000 monitors AC power, intrusion, operating current, battery and rotation.

Federal Signal’s Model SS2000D FSK Encoder offer many extended benefits to any radio controlled signaling device. This unit automatically reports siren/power failures and electronically checks sirens through report-back systems, eliminating the need for personnel at siren sites.
DTMF ENCODER/CONTROLLER (SS2000)

### SPECIFICATIONS

- **Line Input:** 120VAC wall transformer
- **Battery Input:** 11.5-20.0VDC (overvoltage and reverse voltage protection)
- **Input Current:** 175mA standby, 250mA max.
- **Operating Temperature:** 32°F to 122°F / 0°C to 50°C
- **Distortion:** < 3% from pure sinewave
- **Emphasis:** Optional de-emphasis 6dB/octave
- **DTMF Format:** 3-20 digits
- **DTMF Timing:** 35/5 to 999/999 milliseconds (digit length/interdigit silence)
- **Display:** 80-character LCD display (4 lines x 20)
- **DTMF Decode Sensitivity:** 20dB signal/noise
- **Outputs:** 3-DPDT (PTT, Audio and mic disconnect, spare) 1.25A at 24VDC / 0.4 at 120VAC
- **Dimensions:**
  - **Rack:** 19.0" x 10.15" x 5.24" (482.6 mm x 257.8 mm x 133.0 mm)
  - **Desktop:** 11.56" x 10.25" x 4.2" (293.6 mm x 260.4 mm x 107.0 mm)
- **Weight:**
  - **Rack:** 8.0 lbs. / 4.0 kg
  - **Desktop:** 6.0 lbs. / 3.0 kg

### HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:
- Specify model number
  - a. 1-way control, desktop (SS2000)
  - b. 2-way control, desk top (SS2000D for FSK)
  - c. 1-way control, rack mount (SS2000R)
  - d. 2-way control, rack mount (SS2000DR for FSK)
- Optional printer
- Optional activation via contact closure (up to 20) (SS-REMOTE)
Federal Commander Digital System

Model SFCD10 and SFCD25

The Federal Commander Digital System offers Emergency Management Directors and system operators complete, secure activation and status monitoring of any siren system, and consists of the SS2000D encoder, the Commander Software, and digital Siren Controllers. From siren activation to in-home alerting, this system is designed to provide your facility with complete alert and notification capability.

Federal Commander continues to evolve to meet the changing demands of customers throughout the world to provide a system unmatched in its features and ease of use. From controlling either one siren or more than 255, the system can expand to accommodate your changing community needs. By integrating Federal Commander with SmartMsg, now with a single mouse click, system operators can activate their outdoor warning sirens and send SmartMsg alerts to any personal device (cell phone, computer, pager, handheld radio, etc.) to notify specific people about the reason the sirens were activated with instructions on what to do. Federal Commander can also be used to activate sirens based on National Weather Service alerts with the use of EMTools software.

Over 20 different system alerts can be automatically configured and sent via email notification and SmartMsg notification to individuals or groups on their personal devices.

Digital Siren Controllers are available for both electronic sirens, speakers, and electromechanical sirens. These controllers come equipped with over-the-air programmability via secure digital technology.
**Federal Commander System (SFCD)**

**How to Order**

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements. Considerations for system configuration:

- Specify model number:
  - (SFCD10) Windows application software for up to 10 sites
  - (SFCD25) Windows application software for up to 25 sites
- Specify Accessories:
  - (SFCD-W) Commander extended one-year warranty
  - (SFCDCLNT) TCP/IP client software (5 seats)
  - (SFCD-MODEM) 56K PCI Modem for phone dial out feature

**NOTE:** See EMTools and Codespear datasheets for ordering information.

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**CCU Minimum Requirements**

- One Gigabyte or more of Random Access Memory (RAM).
- Two spare PCI BUS ports
- 160GB Hard Disk Drive or larger.
- SVGA Color Monitor and Controller. (800 x 600 resolution minimum, 24 bit color recommended).
- CD RD-W Drive.
- 101-key Enhanced Keyboard.
- One Parallel Printer Port - LPT1
- One RS-232 Serial Port.
- Mouse pointing device.
- Dot Matrix Printer 24-Pin with Parallel Interface and cable.
- Phone Line (Required for voice call out and remote dial-in features).
- AC surge suppression device
- UPS (Optional equipment to provide CCU backup in case of primary AC failure).
- Window OS. XP, Vista, or 2003 Server.

*Sold separately or customer supplied*

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**Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com**